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EXAMINER
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PARRIES, DRU M

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PAPER

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* RONALD ZVER, EDWARD SMITH,  
and DONALD CHARLES

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Appeal 2009-001934  
Application 10/743,339  
Technology Center 2800

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Decided:<sup>1</sup> May 26, 2009

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Before MAHSHID D. SAADAT, ROBERT E. NAPPI,  
and JOHN A. JEFFERY, *Administrative Patent Judges*.

JEFFERY, *Administrative Patent Judge*.

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<sup>1</sup> The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, begins to run from the decided date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or Notification Date (electronic delivery).

## DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 1-20. We have jurisdiction under 35 U.S.C. § 6(b). We affirm-in-part.

## STATEMENT OF THE CASE

Appellants invented a power supply that provides alternate sources of power under certain conditions. The system has switches to transition from one source to another and displays the different states of the power supply with indicators.<sup>2</sup> Independent claim 1 is reproduced below:

1. An arrangement for use in providing power to an electrical device, the arrangement comprising:

- a) an inverter generating an inverter output;
- b) a first switch having an open position and a closed position, the first switch operably coupled to connect the inverter to the electrical device when the first switch is in the closed position;
- c) a second switch having an open position and a closed position, the second switch operably coupled to connect a utility power line source to the electrical device when the second switch is in the closed position;
- d) a bypass controller operable to cause a first transition sequence in which the first switch changes to the open position and subsequently the second switch changes to the closed position, the bypass controller further operable to:
  - cause continuous actuation of a first indicator when the first switch is in the closed position;

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<sup>2</sup> See generally Spec. 3:6-10, 6:3-8:11, and 10:19-11:15.

cause continuous actuation of a second indicator when the second switch is in the closed position; and

cause intermittent actuation of the second indicator during at least a portion of the first transition sequence.

The Examiner relies upon the following as evidence in support of the rejection:

Edevold	US 6,292,379 B1	Sep. 18, 2001
Rossow	US 6,923,285 B1	Aug. 2, 2005 (filed Feb. 1, 2000)

Claims 1-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable by Edevold and Rossow (Ans. 3-4).

Rather than repeat the arguments of Appellants or the Examiner, we refer to the Briefs and the Answer<sup>3</sup> for their respective details. In this decision, we have considered only those arguments actually made by Appellants. Arguments, which Appellants could have made but did not make in the Briefs, have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(vii).

Appellants group the claims as follows: (1) claims 1-9; (2) claims 10-16; and (3) claims 17-20 (App. Br. 6-13). We will address each grouping separately.

### *Claims 1-9*

The Examiner finds that Edevold discloses all the limitations of representative claim 1, except for the bypass controller operable to cause a

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<sup>3</sup> Throughout the opinion, we refer to: (1) the Appeal Brief filed December 26, 2007; (2) the Examiner's Answer mailed April 2, 2008; and (3) the Reply Brief filed June 6, 2008.

first and second indicator to actuate when the first or second switches are in certain states (Ans. 3). The Examiner relies on Rossow to cure these deficiencies, including teaching a controller that actuates a second indicator during a transition sequence (Ans. 3-4). Appellants argue that neither reference discloses, teaches, or suggests a bypass controller “operable to . . . cause intermittent actuation of the second indicator during at least a portion of the first transition sequence” (App. Br. 6-8; Reply Br. 2-3).

### ISSUE

The following issue has been raised in the present appeal:

Under § 103, have Appellants shown that the Examiner erred in finding that the combined Edevold and Rossow system results in a bypass controller that actuates a second indicator at some point during a transition sequence where the first switch changes to the open position and the second switch subsequently changes to the closed position in rejecting claim 1?

### FINDINGS OF FACT

The record supports the following findings of fact (FF) by a preponderance of the evidence.

#### *Edevold*

1. Edevold discloses a bypass module 12 for a power supply 10 that receives voltage through lines 16 and outputs voltage through output lines 18 to utilization equipment. The voltage may pass directly by the bypass circuitry 22 within each module 12 to the output lines 18 or may feed to inverters 20 within each module 12 and then to the output lines 18. (Col. 1, ll. 6-9, col. 4, ll. 42-62, and col. 5, ll. 31-38; Figs. 1 and 2.)

*Rossow*

2. Rossow teaches a control panel 90 for controlling the operation of a backhoe attachment that attaches to a loader 10. (Col. 10, ll. 4-7; Figs. 1 and 3B.)

3. Rossow's control panel 90 has LEDs 304 and 308 to indicate the particular operating mode of the machine. Indicator 304 is illuminated by an attachment control device (ACD) 52 when the attachment on/off button has been depressed. Indicator 308 is illuminated when the traction lock override switch has been closed. (Col. 7, l. 11 and 12, ll. 26-38; Fig. 3B.)

PRINCIPLES OF LAW

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. *See In re Fine*, 837 F.2d 1071, 1073-74 (Fed. Cir. 1988). In so doing, the Examiner must make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966) (stating that 35 U.S.C. § 103 leads to three basic factual inquiries: the scope and content of the prior art, the differences between the prior art and the claims at issue, and the level of ordinary skill in the art). “[T]he examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a *prima facie* case of unpatentability.” *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). Furthermore,

“there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness” . . . . [H]owever, the analysis need not seek out precise teachings

directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.

*KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

## ANALYSIS

As the Examiner admits (Ans. 3) and Appellants have not disputed (App. Br. 6-11; Reply Br. 2-3), Edevold discloses all the elements in claim 1 except for a bypass controller that is operable to actuate a first and second indicator depending on whether the first or second switch is closed or during the first transition sequence. The Examiner relies on Rossow for the deficiencies of Edevold (Ans. 3-4).

Rossow teaches a control panel 90 for controlling the operation of a backhoe attachment that attaches to a loader 10 (FF 2). The control panel 90 has LEDs or indicators 304 and 308 to indicate the particular operating mode of the machine (FF 3). Indicator 304 is illuminated or actuated by an attachment control device (ACD) or controller 52 when the attachment on/off button is pressed. *Id.* Indicator 308 is illuminated or actuated when the traction lock override switch has been closed. *Id.* Rossow therefore teaches using a controller in a power system to actuate an indicator when a switch closes. However, Rossow does not teach or suggest including a controller to actuate an indicator during a transition period or sequence where a first switch opens and a second switch subsequently closes. *See id.*

The Examiner takes the position that the first recited transition sequence includes the period from “the portion starting 1 second before the second switch is closed and ending 1 second after the second switch is closed,” (Ans. 4) and thus, the combined Edevold and Rossow power supply ostensibly teaches that there is an intermittent actuation of the second indicator as recited (Ans. 4-5). We disagree with this interpretation. Claim 1 recites the first transition sequence is when “the first switch changes to the open position and subsequently the second switch changes to the closed position.” Claim 1 further recites that a controller causes (1) “continuous actuation of a second indicator when the second switch is in the closed position,” and (2) “intermittent actuation of the second indicator during at least a portion of the first transition sequence.” Based on these recitations, when the second switch is closed, the second indicator is continuously actuated, and during the transition sequence, the second indicator is intermittently actuated. Thus, as recited, the first transition sequence that causes intermittent actuation of the second indicator cannot occur one second after the second switch is closed, as the Examiner alleges (Ans. 4).

Regarding the prior art, Rossow teaches actuating indicators 304 and 308 either when a button is pressed (e.g., 304 is illuminated) or a switch is closed (e.g., 308 is illuminated) (FF 3). Rossow does not discuss actuating indicators during a transition period between when one switch opens and other closes. *See* FF 3. Contrary to Examiner’s findings (Ans. 5), Rossow also does not address actuating an indicator intermittently. *See id.* There is only a discussion of actuating or illuminating the indicators 304 and 308 and no discussion of how the indicators actuated. (*See id.*) Thus, we agree with Appellants that neither Edevold nor Rossow teaches, individually or in



combination, the limitation, “the bypass controller further operable to . . . cause intermittent actuation of the second indicator during at least a portion of the first transition sequence” as recited in claim 1.

For the foregoing reasons, Appellants have shown the Examiner erred in rejecting claims 1-9 under 35 U.S.C. § 103 based on Edevold and Rossow.

### *Claims 10-16*

Independent claim 10 includes a limitation of a processing circuit “operable to . . . cause a third visible configuration of the plurality of indicators when the arrangement at least a portion of the time when the arrangement is in transition between the inverter power state and the utility power bypass state.” The Examiner finds that Edevold and Rossow collectively teach this limitation (Ans. 3-4). Appellants argue that “third visible configuration” recitation in claim 10 is similar to claim 1 and refers to the arguments made in connection with claim 1 (App. Br. 11-12).

### ISSUE

The following additional issue has been raised in the present appeal:

Under § 103, have Appellants shown that the Examiner erred in finding that the combined Edevold and Rossow system results in a processing circuit that causes a third visible configuration of the indicators at some point during when the arrangement is in transition between the inverter power state and the utility power bypass state in rejecting claim 10?

## ANALYSIS

Based on the above discussion in connection with claim 1, we are persuaded that Edevold and Rossow collectively do not teach the “third visible configuration” limitation of claim 10. As we explained, Rossow fails to teach or suggest any indications during a transition between one switch opening and the other closing. *See* FF 3. Since each switch indicates a power state (*see id.*), Rossow also fails to teach or suggest, even when combined with Edevold, a visible configuration of an indicator during a transition between the inverter power state and the utility power bypass state. Therefore, for the foregoing reasons, Appellants have shown the Examiner erred in rejecting claim 10 under 35 U.S.C. § 103.

Accordingly, we will not sustain the rejection of claim 10, and dependent claims 11-16 for similar reasons.

### *Claims 17-20*

Representative independent claim 17<sup>4</sup> varies in scope from independent claims 1 and 10 and does not include indicators. Claim 17 recites a bypass circuit that includes a first switch operably coupled to connect the inverter to the electrical drive when the first switch is in the closed position, a second switch operably coupled to connect a utility power line source to the electrical drive when the second switch is in the closed position, and a processing circuit operable to cause a first transition sequence in which the first switch changes to the open position and the second switch subsequently changes to the closed position and to provide a

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<sup>4</sup> Appellants group claims 17-20 (App. Br. 13). Accordingly, we select independent claim 17 as representative. 37 C.F.R. § 41.37(c)(1)(vii).

signal to cause the inverter to cease providing output prior to the first switch changing to the open position. The Examiner finds that Edevold and Rossow collectively teach all the limitations of claim 17 (Ans. 3-4). Appellants argue that Edevold and Rossow are nonanalogous art (App. Br. 13).

### ISSUE

The following additional issue has been raised in the present appeal:  
Under § 103, have Appellants shown that the Examiner erred in finding that Edevold and Rossow teach the limitations of claim 17?

### ADDITIONAL FINDINGS OF FACT

The record supports the following additional findings of fact (FF) by a preponderance of the evidence.

#### *Edevold*

4. Edevold teaches an output relay 64 connecting an inverter 20 to utilization equipment when the relay 64 is closed. (Col. 8, ll. 52-55 and 60-64 and col. 9, ll. 8-14; Fig. 5.)

5. Edevold teaches a switching circuit or relay 58 connecting a utility power line source 16 to utilization equipment when the circuit or relay 58 is closed. (Col. 8, ll. 44, 45 and 60-64 and col. 9, ll. 5-10; Fig. 5.)

6. Edevold discloses a flow diagram of the command (i.e., steps 44-52) within each power module 12 of the inverter being turned off and the bypass being turned on. (Col. 7, ll. 45-col. 8, l. 2 and col. 8, ll. 49-55; Fig. 4.)

7. Edevold states the inverter 20 is turned off and the bypass is turned on at nearly the same time. Edevold also states the inverter is first disabled prior to enabling the bypass to ensure the inverter 20 is not paralleled with the utility line. (Col. 7, ll. 65-66 and col. 8, ll. 40-43.)

8. Edevold teaches the controller 24 uses a process high level interrupt 50 prior to turning the bypass on at 52. (Col. 7, l. 57-col. 8, l. 2 and col. 8, ll. 40-43.)

### ANALYSIS

Edevold discloses a power module or bypass circuit 12 used to provide power to utilization equipment or electrical drive without the user of the inverter 20 (FF 1). Edevold discloses the module or arrangement 12 includes an inverter 20 and a bypass circuitry 22. *Id.* The bypass circuitry 22 and output relay 64 make up the complete bypass circuit such that the circuit includes an output relay or first switch 64 having an open and closed position and operably coupled to connect the inverter 20 to utilization equipment or an electrical device when the first switch is in the closed position. (See FF 1 and 4). Edevold also discloses a switching circuit/relay or second switch 58 having an open and closed position and operably coupled to connect input power or a utility power line source 16 to the utilization equipment or electrical drive when the second switch is in the closed position. (See FF 1 and 5).

Edevold further discloses the complete bypass circuit (i.e., steps 44-52) includes a processing circuit operable to cause a first transition sequence in which the first switch 64 opens and the second switch 58 closes (FF 6). In particular, while Edevold discloses that the inverter is turned off

and the bypass is turned on at nearly the same time (FF 7), Edevold also states the inverter is first disabled prior to enabling the bypass (*id.*) and, thus, teaches that the bypass or second switch 58 is closed subsequent to the first switch 64 opening to ensure the inverter is not paralleled with the utility line. (*See id.*) Additionally, Edevold also teaches the controller 24 is operable to disable or cause the inverter to cease providing an output prior to the first switch changing to the open position by performing a process high level interrupt 50 before enabling the bypass. (*See* FF 8). Thus, Edevold discloses or teaches all the limitations of claim 17. The Examiner has similarly relied on Edevold (Ans. 3) to disclose or teach all the limitations of claims 1-20, except for indicators. Since the indicators are not recited in claim 17, Rossow is merely cumulative to Edevold.

For the foregoing reasons, Appellants have not shown the Examiner erred in rejecting claims 17-20 under 35 U.S.C. § 103 based on Edevold and Rossow.

### CONCLUSIONS

(1) Under § 103, Appellants have shown that the Examiner erred in finding that the combined Edevold and Rossow system results in a bypass controller that actuates a second indicator at some point during a transition sequence where the first switch changes to the open position and the second switch subsequently changes to the closed position in rejecting claims 1-9.

(2) Under § 103, Appellants have shown that the Examiner erred in finding that the combined Edevold and Rossow system results in a processing circuit that causes a third visible configuration of the indicators at

some point during when the arrangement is in transition between the inverter power state and the utility power bypass state in rejecting claims 10-16.

(3) Under § 103, Appellants have not shown that the Examiner erred in finding that Edevold and Rossow teach the limitations in claims 17-20.

### DECISION

We have sustained the Examiner's rejection of claims 17-20 and have not sustained the Examiner's rejection of claims 1-16. Accordingly, the Examiner's rejection of claims 1-20 is affirmed-in-part.

No period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

### AFFIRMED-IN-PART

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